

11. A method of manufacturing a lateral double-diffused MOS transistor, comprising:

providing a drift region having a first conductivity;

providing a body having a second conductivity, said body being disposed in the drift region and having a channel thereon; and

providing a source region having the first conductivity, said source region being disposed within said body and having an upper region surrounded by a first impurity region of the first conductivity.

12. The method of claim 11, wherein the first impurity region has a lower impurity concentration than that of said source region.

13. The method of claim 11, further comprising:

providing a second impurity region having the first conductivity, said second impurity region being disposed between the channel and an extended drain region.

14. The method of claim 13, wherein said second impurity region has an impurity concentration lower than that of said drift region.

15. The method of claim 11, wherein the first conductivity is n-type and wherein the second conductivity is p-type.

16. The method of claim 11, wherein said drift region is formed by a semiconductor substrate having the first conductivity.

17. The method of claim 11, further comprising:

providing an extended drain region having the first conductivity, said extended drain region being disposed in said drift region and separated from said body;

providing a drain region having the first conductivity, said drain region being disposed in said extended drain region; and

providing a gate isolating layer and a gate conducting layer sequentially formed atop the channel occurring in said body.

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